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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/672,043
Filing Date: September 26, 2003
Appellant(s): SEXTON ET AL.

Richard D. Emery
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/5/2010 appealing from the Office action mailed 6/10/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: Claims 1-20.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5953340	Scott et al.	9-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102 (b) as being anticipated by Scott ET al. (US 5,953,340).

Regarding claim 1, Scott et al. disclose a network communication device for bi-directional communication networks, comprising:

a first portion (see Figure 5 reference numeral 172, switch module) communicably connectable to a first point and a second point on the bi-directional communication network (see Figures 4 and 5 and relevant portions in the disclosure, a first point corresponds to the second domain 16 and a second point corresponds to the first domain 14, where the first domain and second domain are interconnected via connector ports 154 for data transfer between the two domains), the first portion being configured to manage collisions among a first set of messages transmittable from the first point to the second point (see column 9 lines 1-9 and column 10 lines 2-4, the switch module reduces the amount of data transmitted to each of the ports, which results in a reduced amount of collisions, where the switch module receiving data from the second domain (first point), filtering data to reduce collision, sending filtered data to first domain (second point)); and

a second portion (see Figure 5 reference numeral 176, repeater module) communicably connectable, in parallel with the first portion (see Figure 5, switch module 172 is connected in parallel with repeater module 176), to the first point and the second point (see Figures 4 and 5, a first point corresponds to the second domain 16 and a second point corresponds to the first domain 14, where the first domain and second

domain are interconnected via connector ports 154), the second portion being configured to transmit free of collision management a second set of messages transmittable from the second point to the first point (see column 10 lines 36-50, the repeater module transmits received data to all of the ports associated with the second domain (first point), which corresponds to free of collision management, where the received data is transmitted from the first domain (second point)).

Regarding claim 2, Scott et al. further teach the first and second messages are selected from electrical messages (see column 4 line 50, Ethernet LAN transporting electrical signal type).

Regarding claim 3, Scott et al. further teach the first portion is a network switch (see Figure 5 reference numeral 172, switch module).

Regarding claim 4, Scott et al. further teach the network switch is an analog switch or a digital switch (see column 4 line 50, network 10 in accordance with Ethernet LAN as specified in IEEE 802.3; the switch module is a digital switch).

Regarding claim 5, Scott et al. further teach the second portion is a network hub (see Figure 5 reference numeral 176, repeater module).

Regarding claim 6, Scott et al. further teach the network hub is an analog hub or a digital hub (see column 4 line 50, network 10 in accordance with Ethernet LAN as specified in IEEE 802.3; the repeater module is a digital repeater).

Regarding claim 7, Scott et al. further teach the first and second portions are separate devices or a single device (see Figure 5 reference numerals 172 and 176, separate components in a single adaptive networking device).

Regarding claim 8, Scott et al. further teach further comprising a plurality of network connections for connecting the first and second portions to the first and second points (see Figure 5, connector ports 154).

Regarding claim 9, Scott et al. further teach the plurality of network connections are standardized Ethernet cable connections (see column 4 line 50, Ethernet LAN).

Regarding claims 10 and 18, Scott et al. disclose a bi-directional communication device comprising:

a hub portion (see Figure 5, repeater module 176, a multi-port repeater is considered to be a hub);

a switch portion (see Figure 5, switch module 172);

a first plurality of connections for communicably connecting the hub portion to a plurality of first points on a bi-directional communication network (see Figures 4 and 5 and relevant portions in the disclosure, a first point corresponds to the second domain 16 and a second point corresponds to the first domain 14, where the first domain and second domain are interconnected via connector ports 154 for data transfer between the two domains) and to a second point on the bi-directional communication network (see Figures 4 and 5 and column 10 lines 18-35, a second point corresponds to device 18 in the first domain 14) for transmitting messages from the second point to the first points (see Figure 5 and relevant portions in the disclosure, transferring data between the first domain 14 and the second domain 16); and

a second plurality of connections for communicably connecting, in parallel with the hub portion (see Figure 5, switch module 172 is connected in parallel with repeater

module 176), the switch portion to the plurality of first points (see Figures 4 and 5, and relevant portions in the disclosure, a plurality of first points corresponds to devices 26 and 28 in the second domain 16) and to the second point (see Figures 4 and 5 and relevant portions in the disclosure, a second point corresponds to device 18 in the first domain 14) for transmitting messages from the same first points to the second point (see Figures 4 and 5 and relevant portions in the disclosure, transferring data between the first domain 14 and the second domain 16);

Claim 18 is also rejected under the same reason as claim 10 above;

Regarding claim 11, Scott et al. further teach the hub portion is configured to transmit first messages from the second point to the plurality of first points (see column 10 lines 36-47, repeater module transmits received data to all of the ports associated with the second domain, where the received data is sent from a data device 18 in the first domain and all of the ports associated with the second domain are coupled with data devices 26 and 28 in the second domain).

Regarding claim 12, Scott et al. further teach the hub portion is configured to transmit the first messages without collision management (see column 10 lines 36-50, the repeater module transmits received data to all of the ports associated with the second domain (first point), which corresponds to free of collision management);

Regarding claim 13, Scott et al. further teach the switch portion is configured to transmit second messages from the plurality of first points to the second point (see column 10 lines 47-58, transmitting data from data devices 26 and 28 (first points) in the second domain to the switch module, and then the switch module transmits the data to

the appropriate port to which addressed devices are coupled, where the addressed device is data device 18 (second point) in the first domain).

Regarding claim 14, Scott et al. further teach the switch portion is configured to manage collisions among the second messages (see column 9 lines 1-9 and column 10 lines 2-4 and 36-58, the switch module reduces the amount of data transmitted to each of the ports, which results in a reduced amount of collisions).

Regarding claims 15 and 19, Scott et al. further teach the network switch and the network hub are analog devices, digital devices, or any combination thereof ((see column 4 line 50, network 10 in accordance with Ethernet LAN as specified in IEEE 802.3; the switch module and the repeater module are digital devices).

Regarding claims 16 and 20, Scott et al. further teach the hub and switch portions are separate devices or a single device (see Figure 5 reference numerals 172 and 176, separate components in a single adaptive networking device).

Regarding claim 17, Scott et al. further teach the first and second plurality of connections are standardized Ethernet cable connections (see column 4 line 50, Ethernet LAN).

(10) Response to Argument

Regarding claim 1, the Appellants argue that Scott does not disclose "a first portion communicably connectable to a first point and a second point and configured to manage collisions" and a "second portion connectable, in parallel with the first portion,

to the first point and the second point, the second portion being configured to transmit free of collision management" as recited in independent claim 1.

In response to Appellants' argument, the Examiner respectfully disagrees with the argument above.

Scott discloses an adaptive networking device (see device 151 of Figure 4 and device 152 of Figure 5), where the adaptive networking device includes a switch module for re-transmitting data packet to only one or more of the other ports of the adaptive networking device according to the examined source and destination MAC addresses of each data packet (see column 8 lines 43-67). Thus, the switch module is configured to manage collisions by not re-transmitting the data packets to all of the ports. Scott also discloses a repeater module for re-transmitting data to all of the other remaining ports (see column 6 line 64 – column 7 line 3 and column 9 lines 10-15). Thus, the repeater module is configured to transmit data without collision management since the repeater module simply re-transmits the data to all of the other remaining ports once the repeater module receives the data.

Further, **regarding claim 1**, the Appellants argue that, of the system of Figure 5, Scott discloses "an external connection [can be included] between the first and second domains, such as with a bridge device or the like..." The Appellants conclude that the bridge device disclosed in Scott corresponds to bridge ports in Figure 2 of Scott. Thus, the Appellants find that message from the first to second domain traverse the following path: first domain data device (18) -> switch/repeater module (62,172) -> bridge port (38a) -> bridge (40) -> link (44) -> bridge (42) -> bridge port (38b) -> switch/repeater

module (64,176) -> second domain data device (26). The Appellants also argue that the "external coupling" would appear to be the bridges 40 and 42 and associated bridge ports 38 described with respect to Figs 1 and 2. The Appellant further argues that the absence of the converter in Figure 5 does not in any way result in the system of Figure 5 of Scott disclosing that the first portion is in parallel with the second portion and it appears that any communication from one domain to another in Scott necessarily travels through each of the switch/repeater modules associated with each domain.

In response to Appellants' argument, the Examiner respectfully disagrees with the argument above.

Scott discloses that an external connection between the first and second domains, such as with a bridge device or the like, provides substantial operation improvement since the first domain is not bogged down with extraneous traffic from the second domain (see column 10 lines 13-17, underline added). Scott further discloses that the adaptive networking device 152 provides substantial improvement over the adaptive networking device 12 without a significant increase in cost. Data devices operating according to either the first domain 14 or the second domain 16 are coupled to the appropriate module 172 or 176. Furthermore, devices in the first domain operate in switch mode thereby significantly reducing extraneous traffic for the first domain 14 (see column 10 lines 5-12, underline added). Thus, Scott discloses that the bridge device or the like is the adaptive networking device 152 including a switch module, not the bridge ports in Figure 2 of Scott. Furthermore, Scott merely discloses that the adaptive networking device operates the second domain 16 in shared mode in the same

manner as the adaptive repeater 12. As a matter of fact, Scott discloses that, although not shown in Fig. 4, the adaptive networking device 151 may optionally include the uplink ports 36 a and 36b and the bridge ports 38a and 38b, if desired (see column 8 lines 37-40, underline added). Thus, bridge ports 38a and 38b are not necessary for the adaptive networking device 151,152.

Additionally, Scott discloses that the adaptive networking device 151 operates the first domain in a switch mode. In this manner, the adaptive networking device 151 examines source and destination MAC addresses of each data packet received in the first domain 14 and re-transmits the data packet to one or more of the other ports of the adaptive networking device (see column 8 lines 43-51). For example, data packets from the network 18 transmitted to the adaptive networking device 151 and intended for a data device in network 20 are re-transmitted by the adaptive networking device 151 to port P(n-2) and thus to the network 20 only. In contrast to the operation of the adaptive repeater 12, these data packets intended for the network 20 are not transmitted to any other port of the adaptive networking device 151 (see column 8 lines 56-63). Operation in switch mode reduces the amount of data transmitted to each of the ports associated with the first domain 14 by not repeating each data packet to every other port as is the case for a repeater. This results in a reduced amount of collisions during operation (see column 9 lines 1-9).

Scott also discloses that the adaptive networking device 151 operate in shared/repeater mode, where the adaptive networking device 151 re-transmits data sourced from any of the data devices 26,28,30,etc. to all other ports associated with the

second domain (see column 9 lines 10-15). The switch domain 14 and the repeater domain 16 are independent, though the domains 14, 16 may be coupled externally for data transfer there-between (see column 9 lines 17-20).

Thus, Scott discloses that message from first to second domain traverse the following paths: first domain device -> switch module 172 -> second domain device or first domain device -> repeater module 176 -> second domain device. According to the embodiment of Figure 4 and 5 of Scott, switch module 172 is designed to forward a message to only one or more of the intended ports. On the other hand, repeater module 176 is designed to forward a message to all of the remaining ports. According to the Appellants' argument, a message traverses the following path: first domain device -> switch module 172 -> repeater module ->second domain device. If the data packets are forwarded to the repeater module 176 from the switch module 172, the repeater module 176 will perform its operation, which is to re-transmit data sourced from any of the data devices connect to one port to all other ports associated with the second domain (see column 9 lines 12-15). However, the statement contradicts with the disclosure of Scott because Scott discloses the switch module transmitting to port P(n-2) and thus to network 20 only. The messages transmitted from the switch module 172 do not traverse through the repeater module 176. Therefore, the switch module 172 is connected in parallel with the repeater module 176.

Similar to claim 1, the same reasons given above for independent claim 1 also applies to independent claims 10 and 18.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Pao Sinkantarakorn/

Examiner, Art Unit 2464

Conferees:

/Ricky Ngo/

Supervisory Patent Examiner, Art Unit 2464

/Huy D Vu/

Supervisory Patent Examiner, Art Unit 2461